

**DISK DRIVE ATTENUATING EXCITATION OF ARM VIBRATION MODE BY
SIMULTANEOUSLY DRIVING SECONDARY ACTUATOR FOR NON-ACTIVE HEAD**

ABSTRACT OF THE DISCLOSURE

A disk drive is disclosed employing a primary actuator for rotating an actuator arm about a pivot in coarse movements, and first and second secondary actuators coupled to the actuator arm for actuating first and second heads in fine movements. A servo control system generates a first control signal applied to the first secondary actuator to position the first head over the first disk surface in fine movements while accessing the first disk surface. The servo control system phase shifts the first control signal by a predetermined phase to generate a second control signal applied to the second secondary actuator to attenuate excitation of at least one arm vibration mode.